

**Preliminary list of Auchenorrhyncha with notes on distribution and importance of species in Turkey. XV. Family-Cicadellidae : Typhlocybinae : Erythroneurini ( Part I )**

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**Summary**

Turkish fauna of Erythroneurini, excluding genera of *Zyginidia* and *Zygina*, is represented by 17 species of seven genera. Three species, namely *Hauptidia (Hauptidia) distinguenda* (Kbm.), *H. (H.) stellata* (Rib.) and *Imbecilla imbecilla* (Linn.) are added to the fauna as new records for Turkey at the result of this study. Distribution, abundance and plants which the specimens were collected on of each species are given.

**Introduction**

Excepting newly recorded species, the rest of the species recorded in this paper were previously reported by other authors. Zachvatkin (1946) described *Arboridia expansa* Zach. from Turkey. Dlabola (1957) reported 5 species and described *Arboridia adanae* Dlab.by collecting material in Turkey. Linnavuori (1965) collected some specimens of *Tamaricella tamaricis* (Put.) on his way through Turkey. Tuatay et al. (1967, 1972) listed *Arboridia adanae* Dlab. and *Frutioidia (Frutioidia) bisignata* (M.R.). Metcalf (1968) listed only *Arboridia expansa* (Zach.) and *A. parvula* (Boh.) from Turkey according to earlier authors. Dlabola (1971), later added three more species, *Kropka unipunctata* (Dlab.), *Arboridia versuta* (Mel.) and *Tamaricella ribauti* Zach. with two previously reported species. Nast (1972) listed ten of the species given in this paper. Lately Dlabola (1981) reported two more species, *Arboridia cantoreanica* Dwo. and *Tamaricella cypria* (Rib.) which are not previously reported.

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From the economical stand point, *Arboridia adanae* (Dlab.) is the most important species among the species listed in this paper. When Dlabola (1957) described it, its plant was not given. But in following years it was turned to be pest of vine in Turkey. Tuatay et al. (1967, 1972) listed it from Diyarbakır on *Vitis vinifera*, and later added Kayseri (İncesu) again on vine. İren and Ahmed (1973) also listed the species as being a dominant pest of vine in Central and Southeastern Anatolia. Then İren (1976) made a large survey on the pests of vine in Central Anatolia and concluded that the species is widely distributed in Ankara, Çankırı, Eskişehir, Kayseri, Kırşehir, Konya, Nevşehir, Sivas and Yozgat. The infestation was found to be about 65% in Kayseri (İncesu), 27% in Nevşehir in 1965 and 10-60 % in Ankara (Kırıkkale), very dense in Kayseri (İncesu) in 1970. This pest is also widely distributed in Aegean region. Therefore Plant Protection and Agricultural Quarantine Organization has taken in control programs in vineyards.

The other species have not been found economically important. Synonyms, distribution of the species in Palearctic region are taken from Nast (1972) catalogue. Additional countries are given with literature citations. Identifications were made by the junior author.

#### **Hauptidia (Hauptidia) cretacea** (Moravskaja, 1948)

**Synonymy:** *Erythroneura furcata* Dlabola, 1957.

**General Distribution:** Turkey, USSR (Armenia, Kazakhstan, S. Russia, Ukraine), Iran (Dlabola, 1981).

**Distribution in Turkey:** Dlabola (1.c), reported it in Ankara (Mogan gölü) under the name of *Erythroneura furcata* Dlab. This is the only record so far found from Turkey.

**Material examined:** Adana (Pozantı), Ankara (Çubuk, Elmadağ, Eymir gölü, Lalahan, Kızılcahamam), Erzincan (Demirpınar)-Totally 22 specimens.

**Occurrence:** Somewhat common, sometimes found in small numbers.

**Biological note.** Specimens were collected in early July and mid-August. They were taken on *Artemisia*, *Solanum tuberosum*, *Beta vulgaris rapa*, *Pyrus malus*, and *Ulmus* sp.

#### **Hauptidia (Hauptidia) distinguenda** (Kirschbaum, 1868)

**Synonymy:** *Zygina fasciaticollis* Rey, 1891; *Erythroneura (Zygina) distinguenda ecbalii* Linn., 1962.

**General Distribution:** Austria, Bulgaria, Cyprus, Czechoslovakia, France, German F.R., Israel, Italy, Poland, Romania, Sweden, Spain, Switzerland, USSR (Armenia).

**Distribution in Turkey:** This species is a new record for Turkey.

**Material examined:** Ankara (Central province) - Only one specimen.

**Occurrence:** Very occasionally.

**Biological note:** The specimen was collected in August by light trap. Ribaut (1936) reported it on various weeds, especially on Gramineae. Linnavuori (1962) collected it on *Tamarix* and *Ecbalium elaterium*.

**Hauptidia (Hauptidia) stellata** (Ribaut, 1948)

**General Distribution:** Cyprus.

**Distribution in Turkey:** This is the first record of the species in Turkey.

**Material examined:** Malatya (Pötürge), Zonguldak (Karabük) - Only two specimens.

**Occurrence:** Very occasionally.

**Biological note:** These 2 specimens were collected in mid-September. Ribaut (l.c) reported it being on *Galium canum* in Cyprus.

**Kropka unipunctata** (Dlabola, 1957)

**Synonymy:** *K. vidanoi* Dwo., 1970 (Dlabola, 1977).

**General Distribution:** Bulgaria, Iran and Turkey, Greece, Yugoslavia, Pakistan (Dlabola, 1971, 1977).

**Distribution in Turkey:** Dlabola (1971) reported it from Hakkari (Esendere-Yüksekova) and Bitlis (Tatvan, Reşadiye).

**Material examined:** Ankara (Lalahan), Çorum (Kargı), Gümüşhane, Kayseri (Erciyes), Sivas (Suşehri) - Totally 5 specimens.

**Occurrence:** Occasionally.

**Biological note:** These 5 specimens were collected in the first half of July and August on *Euphorbia*, *Tamarix* and *Verbascum*.

***Arboridia adanae* (Dlabola, 1957)**

**General Distribution:** Israel, Turkey.

**Distribution in Turkey:** Dlabola (1.c.) described it from the specimens collected in Adana (Abacılar, Misis) and Ankara (Çubuk Baraj). Tuatay et al. (1967, 1972) listed it from Diyarbakır and Kayseri (İncesu). İren and Ahmed (1973) reported it from central, south and eastern Anatolia. İren (1976) made a large survey in vineyards in Central Anatolia and reported it from Ankara (Çubuk, Keskin, Kırıkkale, Hasandede, Haymana, Polatlı, Sulakyurt), Çankırı (Eldivan), Eskişehir (Sarıcakaya), Kayseri (Central province, İncesu, Yeşilhisar, Yahyalı, Develi), Kırşehir (Central province, Kaman), Konya (Ereğli, Ayrancı), Nevşehir (Central province, Gülşehir, Avanos), Sivas (Gemerek), and Yozgat (Çekerek, Sorgun). Lodos (1982) added west Anatolia, Adıyaman, Urfa, Mardin, up to Siirt to the places given by other authors.

**Material examined:** Adana (Ahmetli, Pozantı), Ankara (Çubuk, Kırıkkale, Tuzgölü), Denizli (Buldan), Diyarbakır, Gaziantep (İslahiye), Kayseri (İncesu, Yeşilhisar), Nevşehir (Ürgüp), Niğde (Ulukışla)

Totally 223 specimens. It seems to be distributed in most parts of Turkey.

**Occurrence:** Very common and sometimes found in large numbers.

**Biological note:** Specimens were collected starting early May through October, on *Vitis vinifera* which cause of serious damage to it. İren (1976) reported that it causes serious damage by feeding on leaves, especially in Ankara (Kırıkkale) and Kayseri (İncesu) in 1970. Lodos (1982) stated that feeding of pest, cause white spots on leaves, if the infestation is heavy, the leaves become dry and fall of prematurely which consequently cause economical damage on grape.

The population increases especially in July.

***Arboridia cantoreanica* Dworakowska, 1970**

**General Distribution:** Bulgaria, Turkey (Dlabola, 1981).

**Distribution in Turkey:** Dlabola (1.c.) reported it 30 km far from southeast of Kütahya in *Quercus*, *Juniperus* forest.

The authors have no representative material of this species.

***Arboridia expensa* (Zachvatkin, 1946)**

**General Distribution:** Bulgaria, Turkey.

**Distribution in Turkey:** Zachvatkin (1.c.) described this species from specimens collected in Ankara in December, 1934 under the stones while overwintering. Metcalf (1968), listed it basing to this earlier report.

**Material examined:** Ankara (Çubuk), Giresun-Totally 6 specimens.

**Occurrence:** Occasionally.

**Biological note:** The specimens were collected in early August and September. They were taken on *Ulmus* and *Corylus avellana*.

***Arboridia parvula* (Bohemann, 1845)**

**Synonymy:** *Erythroneura disjuncta* Rib., 1931 (Primary homonym).

**General Distribution:** Albania, Austria, Belgium, Bulgaria, Czechoslovakia, Denmark, England, Finland, France (also Corsica), Germany, Hungary, Ireland, Italy (also Sardinia and Sicily), Netherlands, Poland, Portugal, Romania, Spain, Sweden, Switzerland, Tunisia, Turkey, USSR, Yugoslavia.

**Distribution in Turkey:** Metcalf (1968), listed it from Turkey according to Horvarth (1918). The authors could not find any other report recording this species from Turkey. However, authors are now able to confirm the presence of this species in the Turkish fauna.

**Material examined:** Ankara (Çubuk-Karagöl) - Only one specimen.

**Occurrence:** Very occasionally.

**Biological note:** The specimen was collected in early July of 1967 on *Quercus*. Ribaut (1936) has given *Quercus*, *Alnus*, *Corylus*, *Betula*, *Carpinus*, *Salix*, *Fagus*, *Ulmus*, *Tilia*, *Acer* as host plants for this species.

***Arboridia versuta* (Melichar, 1897)**

**Synonymy:** *Erythroneura spathulata* Rib., 1931.

**General Distribution:** France, German F.R., Italy, Switzerland, USSR, (w. Siberia, Ukraine), Yugoslavia. Turkey (Dlabola, 1971).

**Distribution in Turkey:** Dlabola (1.c.) reported it from Bitlis - Baykan, that collected on *Quercus*.

**Material examined:** Kars (Sarıkamış) - Only one specimen.

**Occurrence:** Very occasionally.

***Imbecilla imbecilla* (Linnavuori, 1962)**

**Synonymy:** *Erythroneura libanotica* Dlabola, 1965.

**General Distribution:** Israel, Lebanon.

**Distribution in Turkey:** This is the first record of the species in Turkey.

**Material examined:** Diyarbakır (Central province, Müderris village), Mardin, Trabzon-Totally 8 specimens.

**Occurrence:** Occasionally.

**Biological note:** The specimens were collected starting from mid-June through up to the late September. They were taken on weeds and also *Tamarix*. Linnavuori (1962) collected specimens on deciduous trees and bushes, especially on *Pistacia palaestina*, *Populus euphraticus* and *Salix acmophylla* in Israel.

***Frutioidia (Frutioidia) bisignata* (Mulsant et Rey, 1855)**

**Synonymy:** *Zyginidia (Frutioidia) bisignata bactriana* Zach., 1947.

**General Distribution:** Austria, Bulgaria, Cyprus, France, Greece (Euboea), Iran, Israel, Italy (also Sardinia), Jordan, Portugal, Spain, Switzerland, Tunisia, Turkey, USSR, Yugoslavia, Iran (Dlabola, 1981).

**Distribution in Turkey:** Dlabola (1957) collected some specimens of this species in Adana (Abacılar, Tapan). Tuatay et al. (1967, 1972) listed it from Giresun. Dlabola (1971) reported it again from Bitlis (Tatvan, Baykan), Izmir-Keçiborlu (Afyon road cross). Ural et al. (1973) recorded it from Giresun (Central province, Bulancak, Keşap), Ordu and Trabzon in hazelnut orchards.

**Material examined:** Adana (Hasanbeyli), Çankırı (Ilgaz), Giresun, Isparta (Kayı village), İzmir (Kemalpaşa), Nevşehir (Central province), Zonguldak (Karabük) - Totally 21 specimens.

**Occurrence:** Somewhat common but found in small numbers.

**Biological note:** Specimens were collected starting from late April through mid-June up to the early October. They were taken on *Pyrus malus*, *Vitis vinifera* and *Corylus avellana*, *Prunus communis*, *Quercus*. Ribaut (1936) stated that it is found on *Crataegus*, *Rosa*, *Prunus* spp., *Quercus*, and pass the winter on *Rubus*, and *Erica*. Dlabola (1971) has given deciduous trees and shrubs as host of this species. Linnavuori (1962) reported it on *Poterium spinosum*, *Prunus amygdalus* in Israel,

Dlabola (1981) on *Amygdalus*, *Crataegus* in Iran, and found at the stony terrain with *Pistacia* and *Crataegus*.

**Frutioidia (Frutioidia) sanguinosa (Rey, 1891)**

**Synonymy:** *Zygina picta* Mel., 1896

**General Distribution:** France, Italy, Libya, Turkey, USSR (Georgia) Yugoslavia, Iran (Dlabola, 1971).

**Distribution in Turkey:** Dlabola (1957) collected some specimens in Adana (Central province, Abacılar).

The authors have no representative material of this species.

**Helionidia himyarita Zachvatkin, 1946**

**Synonymy:** *Erythroneura acutistyla* Dlab., 1952 *Heliona desmanthi* Lind., 1958.

**General Distribution:** Iran, Iraq, Israel, Turkey; (Ethiopian region).

**Distribution in Turkey:** Dlabola (1957) collected specimens in Adana (Central province, Abacılar, Karataş, Kozan, Misis) and Mersin (Alata).

The authors have no representative material of this species.

**Tamaricella cypria (Ribaut, 1948)**

**General Distribution:** Cyprus, Egypt, Israel; (Ethiopian region). Iran, Turkey (Dlabola, 1981).

**Distribution in Turkey:** Dlabola (1981) reported it from Malatya (Balaban, Darende).

**Material examined:** Ankara (Eymir gölü, Kırıkkale)-Totally 77 specimens.

**Occurrence:** Common, sometimes found in large numbers.

**Biological note:** Specimens were collected in late August and early September. They were all taken on **Tamarix**.

**Tamaricella remanei Dworakowska, 1971**

**General Distribution:** Greece, Turkey, Yugoslavia.

**Distribution in Turkey:** Although some reports indicating that it is found in Turkey but, none of them given specific finding locality. Therefore the authors are now able to confirm the presence of this species in the Turkish fauna.

**Material examined:** Ankara (Eymir gölü), Izmir (Karşıyaka) - Totally 50 specimens.

**Occurrence:** Somewhat common, found in fairly large numbers.

**Biological note:** Specimens were collected between in mid-July and late August on **Tamarix**.

***Tamaricella ribauti* (Zachvatkin, 1947)**

**General Distribution:** Greece (Crete), Iran, USSR (Kazakhstan, s. Russia, Ukraine), Yugoslavia. Afghanistan, Pakistan, Iran, Turkey (Dlabola, 1971, 1981).

**Distribution in Turkey:** Dlabola (1971), reported it from Van.

**Material examined:** Erzurum (Tortum), Sivas (Suşehri) - Only two specimens.

**Occurrence:** Very occasionally.

**Biological note:** The specimens were collected in July and taken on **Tamarix**.

***Tamaricella tamaricis* (Puton, 1872)**

**Synonymy:** *Helionidia* (*Tamaricella*) *subpunctata* Vilbaste, 1961.

**General Distribution:** Bulgaria, Cyprus, Egypt, France, Greece, Israel, Italy (also Sardinia), Libya, Romania, Spain, Tunisia, Turkey, USSR; (Ethiopian region). Iran (Dlabola, 1971).

**Distribution in Turkey:** Dlabola (1957,1971) reported it from Adana (Feke), Ankara (Çubuk Baraj) and Van (Başkale). Linnavuori (1965), listed it from Adana (Pozantı).

**Material examined:** Diyarbakır (Müderris village), Erzurum (Demirpınar)-Only two specimens.

**Occurrence:** Very occasionally.

**Biological note:** Specimens were collected in mid-July. This species also lives on **Tamarix** as the other species of **Tamaricella**.



## Ö z e t

Türkiye Auchenorrhyncha türlerinin yayılışı ve önemlerine ait ön listesi.  
XV. Familya: Cicadellidae: Typhlocybinae:  
Erythroneurini (I. Kısım)

**Zyginidia** ve **Zygina** cinsleri hariç, Türkiye Erythroneurini faunası yedi cinsle ait 17 türle temsil edilmektedir. Bu çalışma ile faunaya üç tür: **Hauptidia (Hauptidia) distinguenda** (Kbm.), **H. (H.) stellata** (Rib.) ve **Imbecilla imbecilla** (Linn.), yeni kayıt olarak ilave edilmiştir. Her bir türün yayılışları, ekonomik önemi ve üzerinden toplandıkları bitkiler verilmeye çalışılmıştır.

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